

**Abstract of the Disclosure**

The present invention provides an apparatus for detecting a nanoscale moiety and a method for sensing a nanoscale moiety. The apparatus includes a substrate having a  
5 nanopore, at least one excitable molecule attached to the substrate adjacent to the nanopore, and a light source for exciting the excitable molecule attached to the substrate adjacent to the nanopore wherein the excitable molecule is quenched by the quencher molecule on the nanoscale moiety as it passes by the excitable molecule.

The invention also includes a method for detecting the presence or identity of the  
10 nanoscale moiety.

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